

Acaricidal Activity of Medicinal Plant Extracts against *Dermanyssus gallinae* (Acari: Dermanyssidae) Adults

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The acaricidal activity of methanol extracts from 35 plant species against poultry house-collected adult *Dermanyssus gallinae* De Geer was examined using direct contact and fumigation methods. In a filter paper contact bioassay, 100% mortality at 0.35 mg/cm² was observed in methanol extracts from *Asiasarum sieboldii* whole plant, *Cinnamomum camphora* resin, *C. sieboldii* bark, *Eugenia caryophyllata* bud, *Foeniculum vulgare* fruit, *Glycyrrhiza. glabra* root, *Illicium verum* fruit, *Lysimachia davurica* whole plant, *Mentha arvensis* var. *piperascens* whole plant. Especially, methanol extracts of *A. sieboldii*, *C. sieboldii*, *E. cayophyllata*, and *M. arvensis* var. *piperascens* showed 100% acaricidal activity at 0.07 mg/cm². LD50 values of *A. sieboldii*, *C. sieboldii*, *E. cayophyllata*, and *M. arvensis* var. *piperascens* against *D. gallinae* adults were 0.12, 0.1, 0.13, and 0.14 mg/cm², respectively. In fumigation tests with adult *D. gallinae* at 0.28 mg/cm², methanol extracts from *A. sieboldii* whole plant, *C. sieboldii* bark, *E. caryophyllata* bud, and *M. arvensis* var. *piperascens* whole plant were more effective in closed containers than in open ones, indicating that the mode of delivery of these plant extracts was largely a result of action in the vapour phase. Plant extracts described herein may be used as valuable natural sources to apply as potential *D. gallinae* control agents.